

Potential Non- Attainment Designations

CAPCA

April 24, 2003



Potential Non-Attainment Designations

- Status of Process
- Potential Areas
- Case Study
- PM2.5

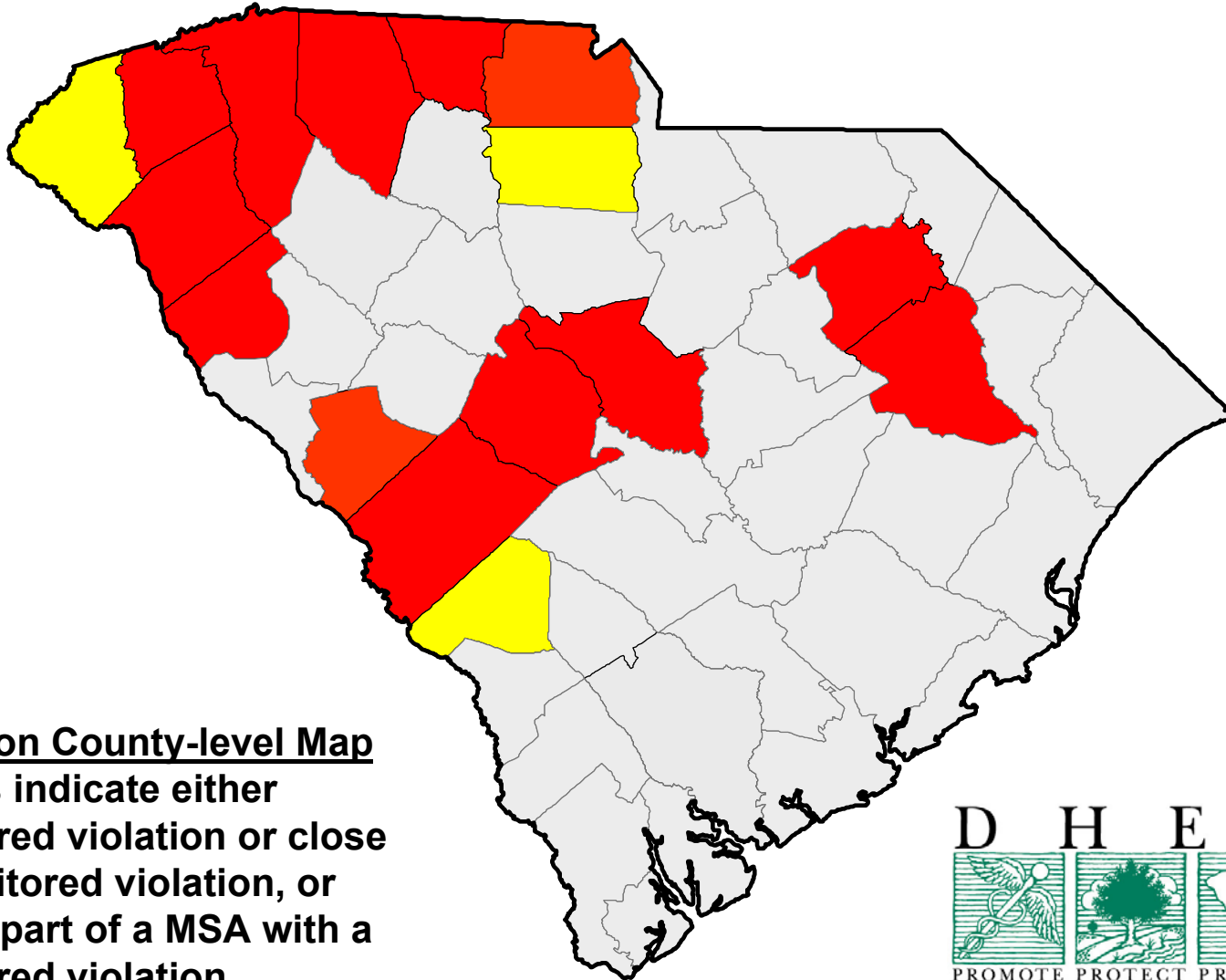


South Carolina's 8-Hour Ozone Boundary Recommendations

- Working on draft proposal
- Following EPA boundary guidance
 - Considering 11 factors/criteria
- Will seek public comment
 - ~ May 15, 2003
- Submit to EPA on or before July 15



Potential 8-Hour Ozone Non-Attainment Boundaries

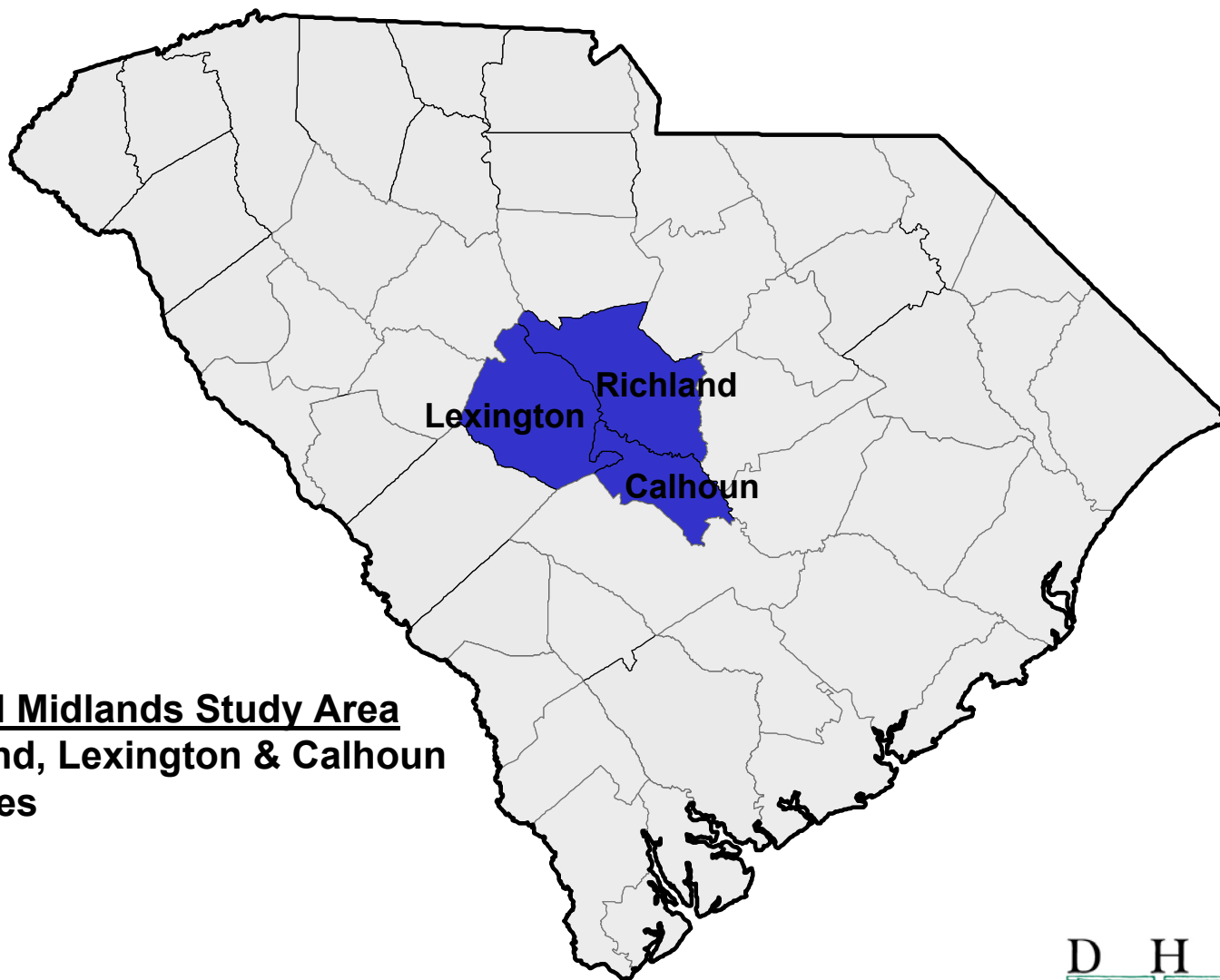


Based on County-level Map

- Colors indicate either monitored violation or close to monitored violation, or area is part of a MSA with a monitored violation.

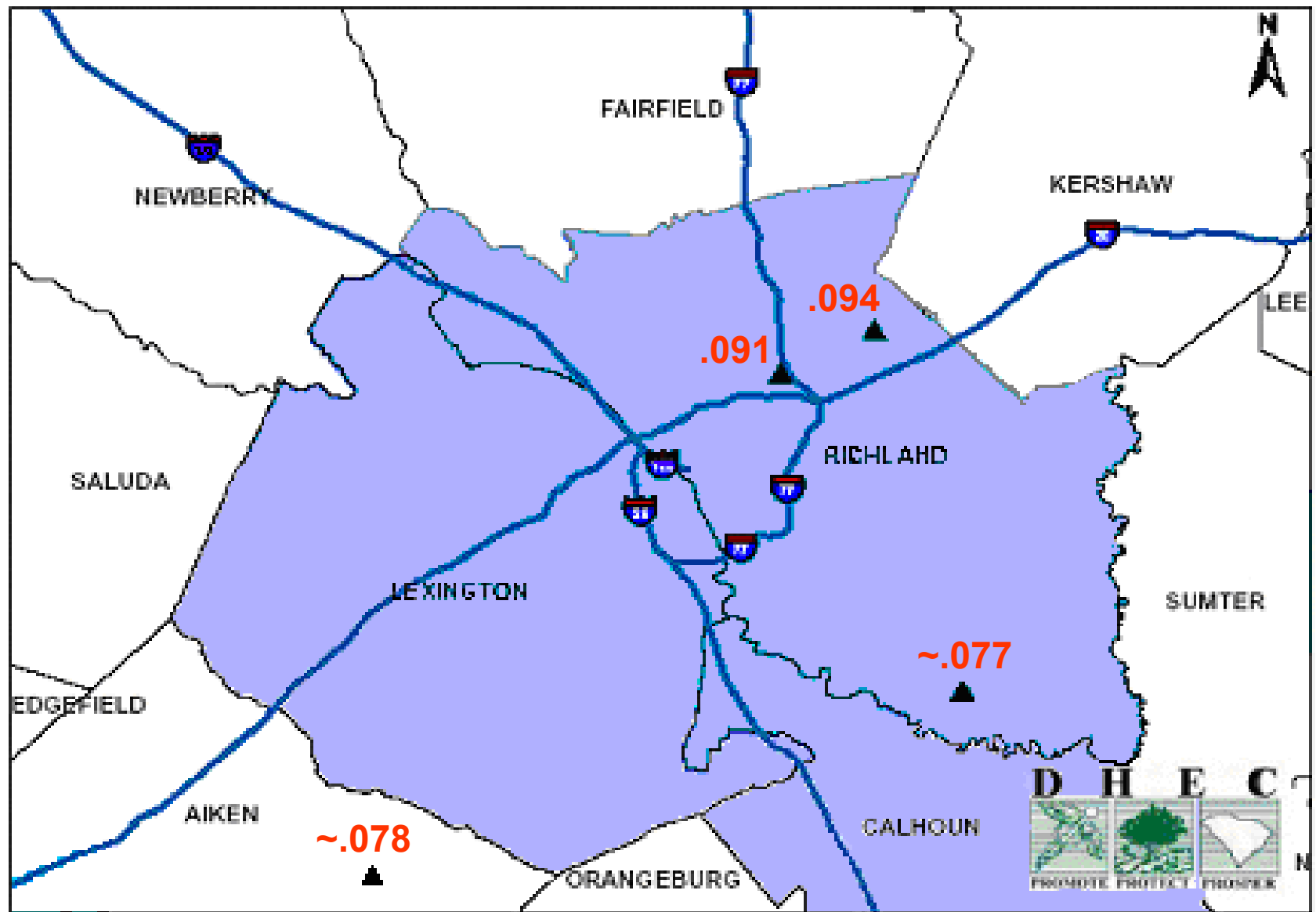


Case Study: Central Midlands Area



Central Midlands Study Area
Richland, Lexington & Calhoun
Counties

Central Midlands Area Ozone Monitors

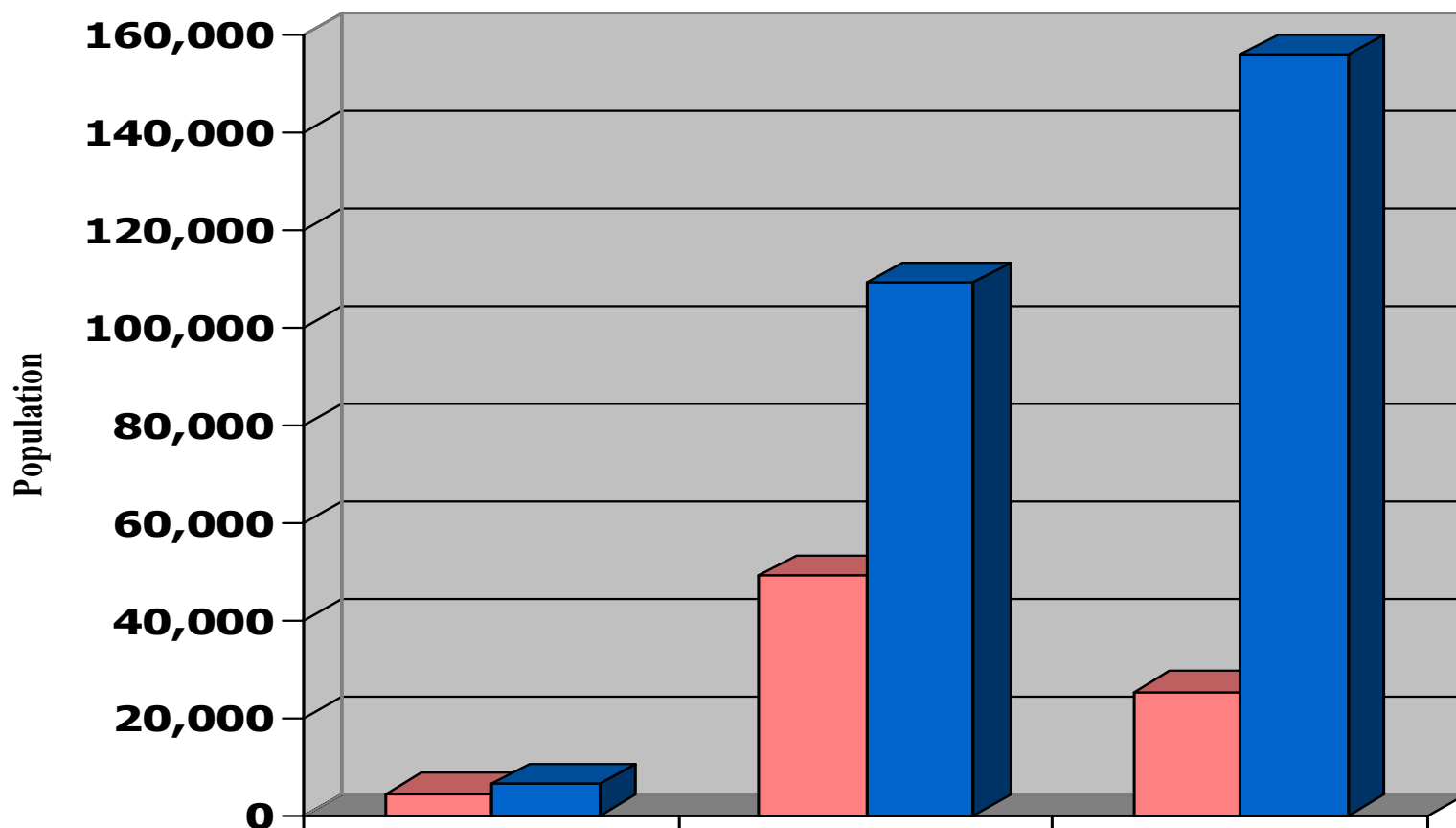


Population & Land Area

	Calhoun	Lexington	Richland
Population	15,185	216,014	320,677
Land Area (Sq. Miles)	380	699	756
Persons/Sq. Mile	40	309	424
% Urban (MPO)	0%	66%	87%
% Rural	100%	34%	13%



Population Working Outside County of Residence

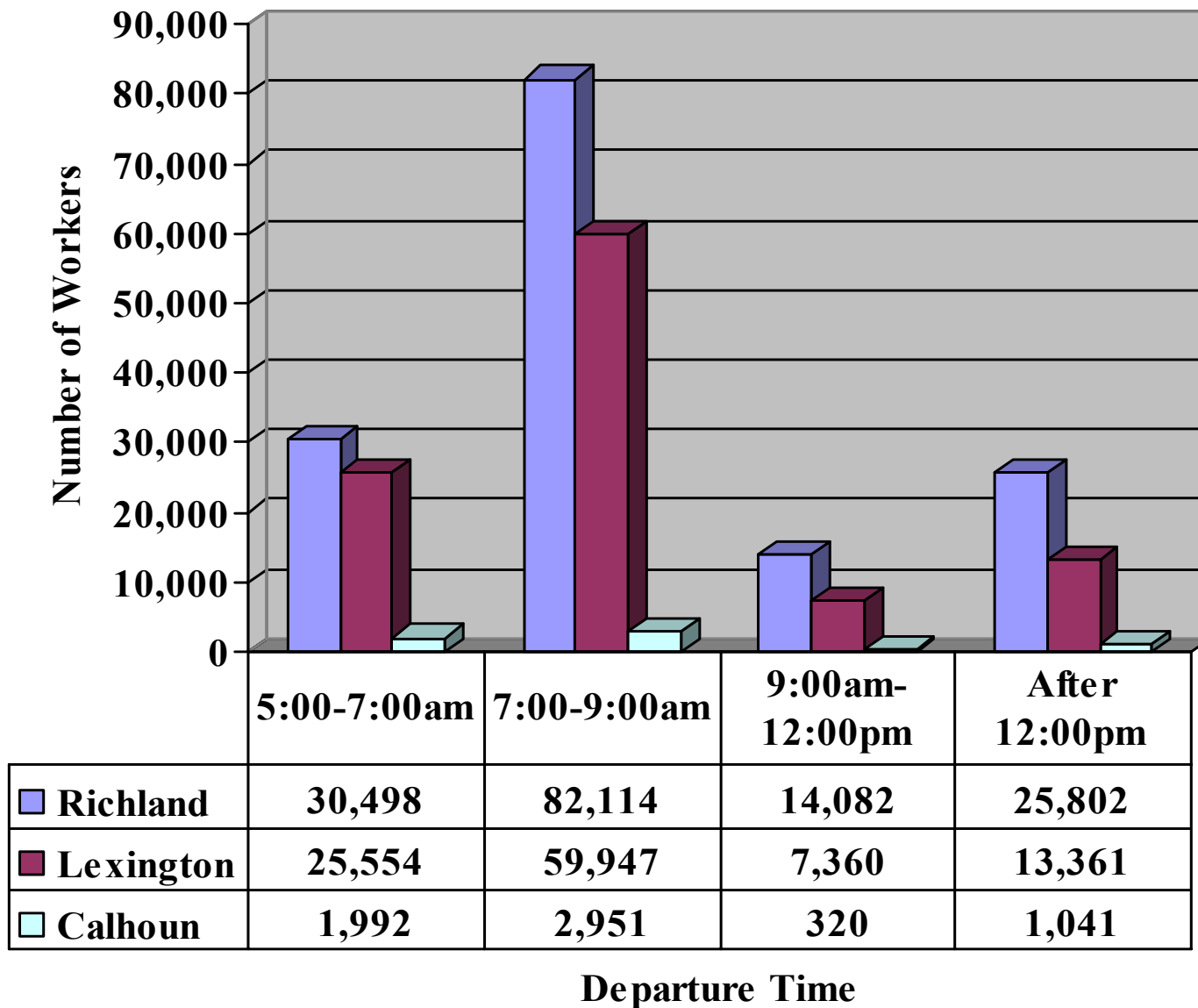


	Calhoun County	Lexington County	Richland County
Population working outside county of residence	4,267	49,075	25,220
Working population	6,417	109,259	155,968

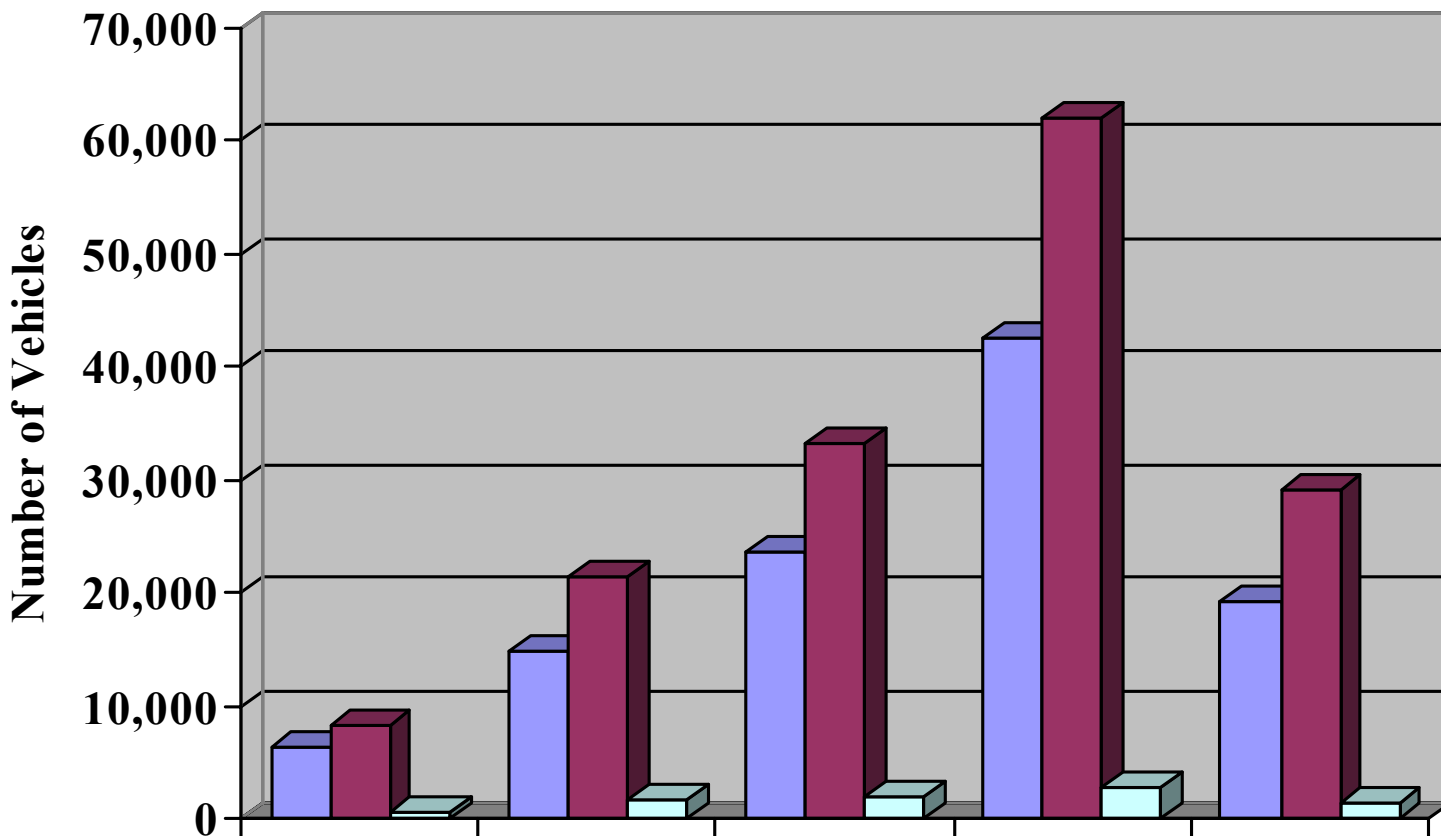
Counties



Time Leaving Home to Go to Work, 2000



Motor Vehicle Registration (2000)

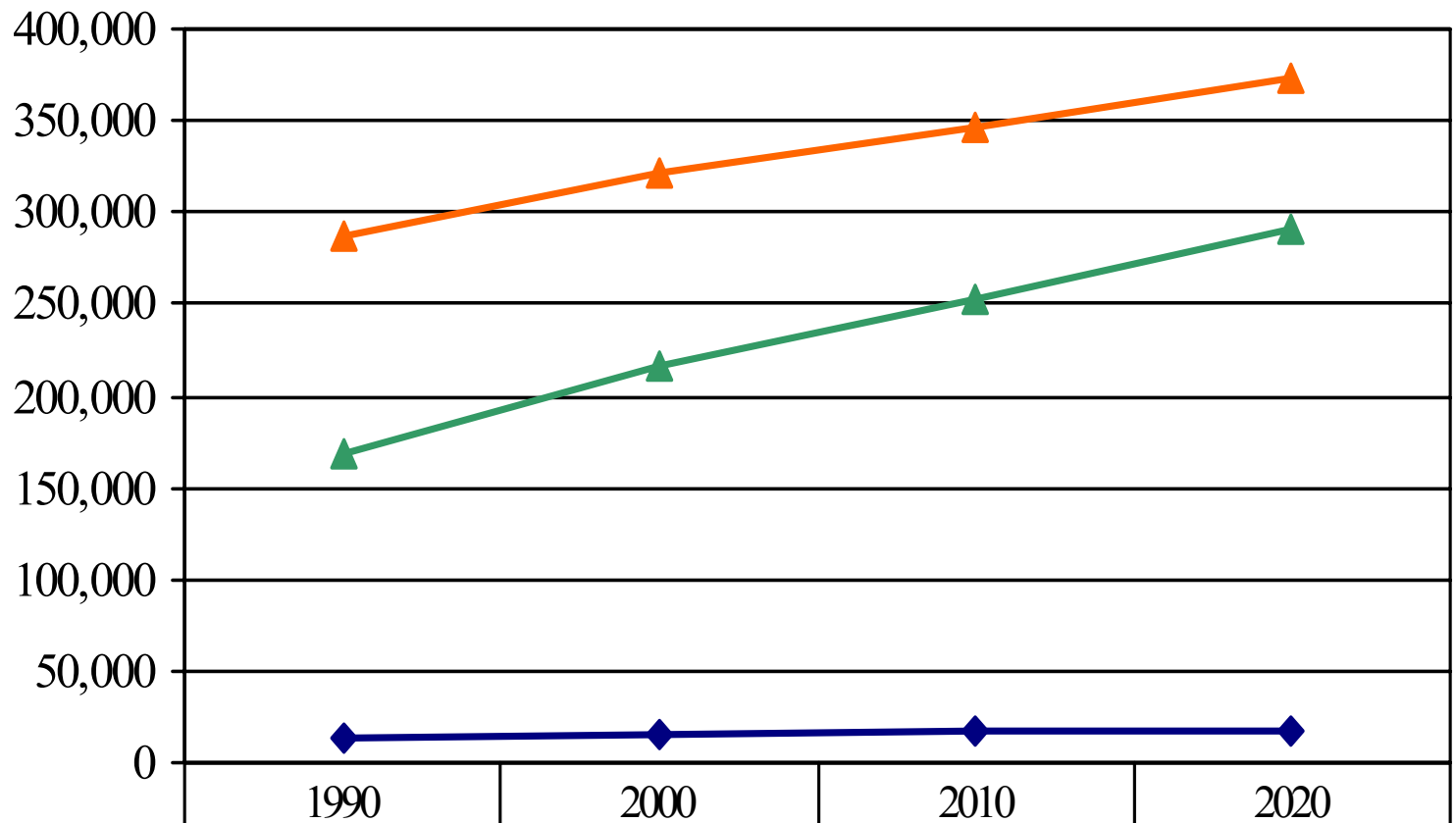


	<1979	1980-1986	1987-1990	1991-1995	1996-2001
Lexington	6,320	14,779	23,616	42,499	19,291
Richland	8,338	21,373	33,144	62,005	29,203
Calhoun	652	1,659	2,055	2,854	1,274

Model Year



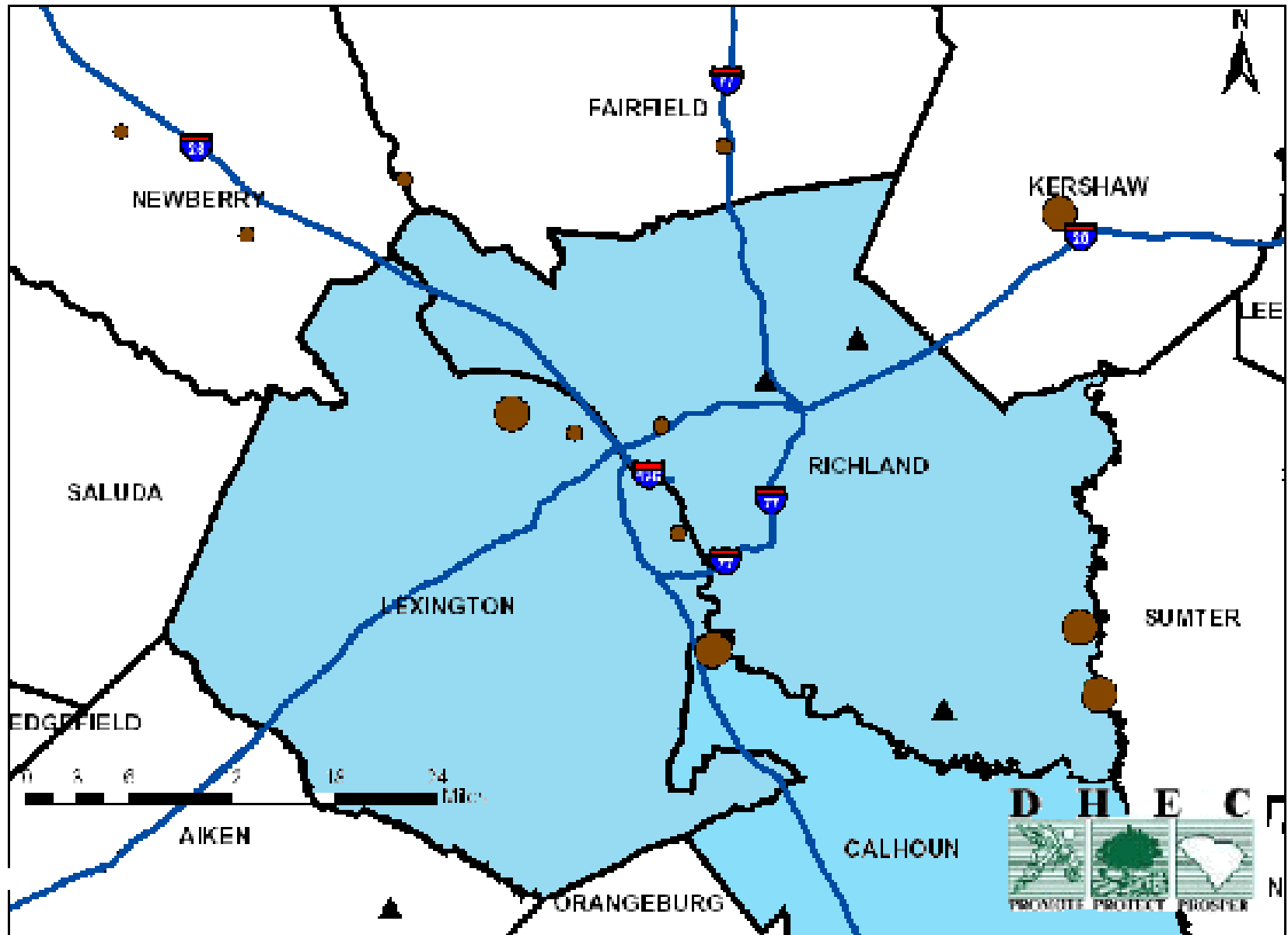
**Figure F-1:
Population Growth by County, 1990 - 2020**



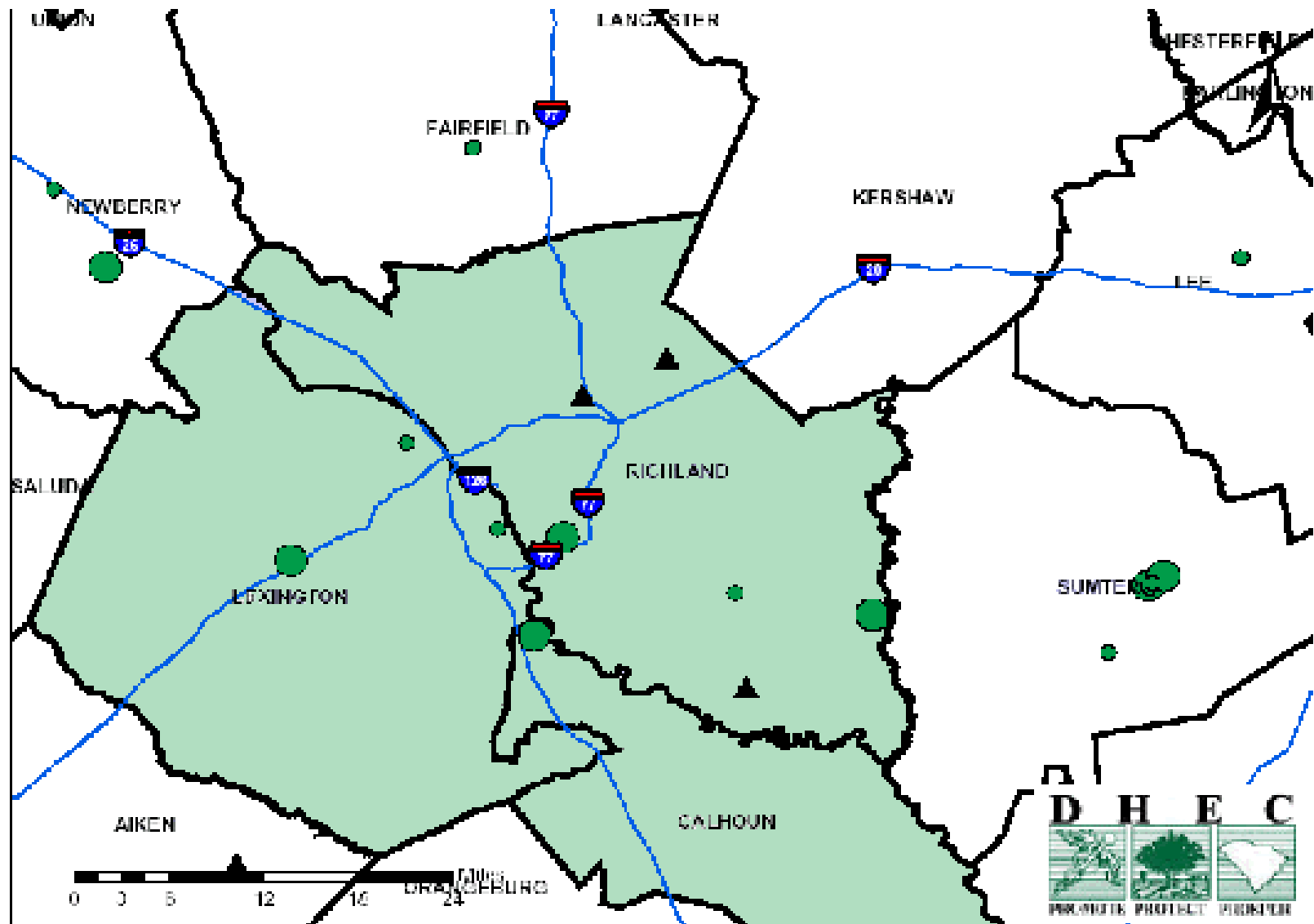
◆ Calhoun County	12,753	15,185	16,350	17,910
▲ Lexington County	167,526	216,014	252,580	291,600
▲ Richland County	286,321	320,677	345,660	373,370



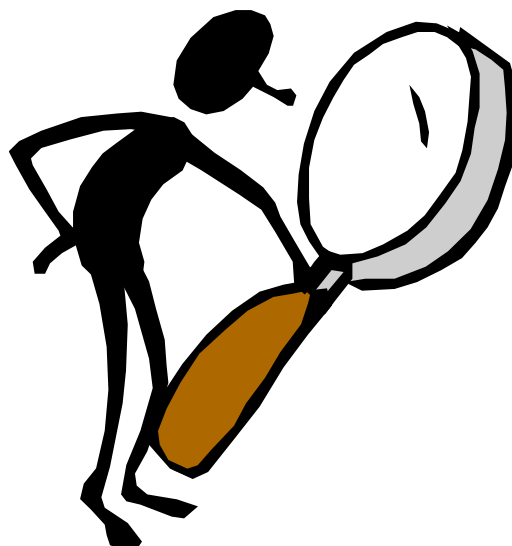
Central Midlands Area NO_x Sources



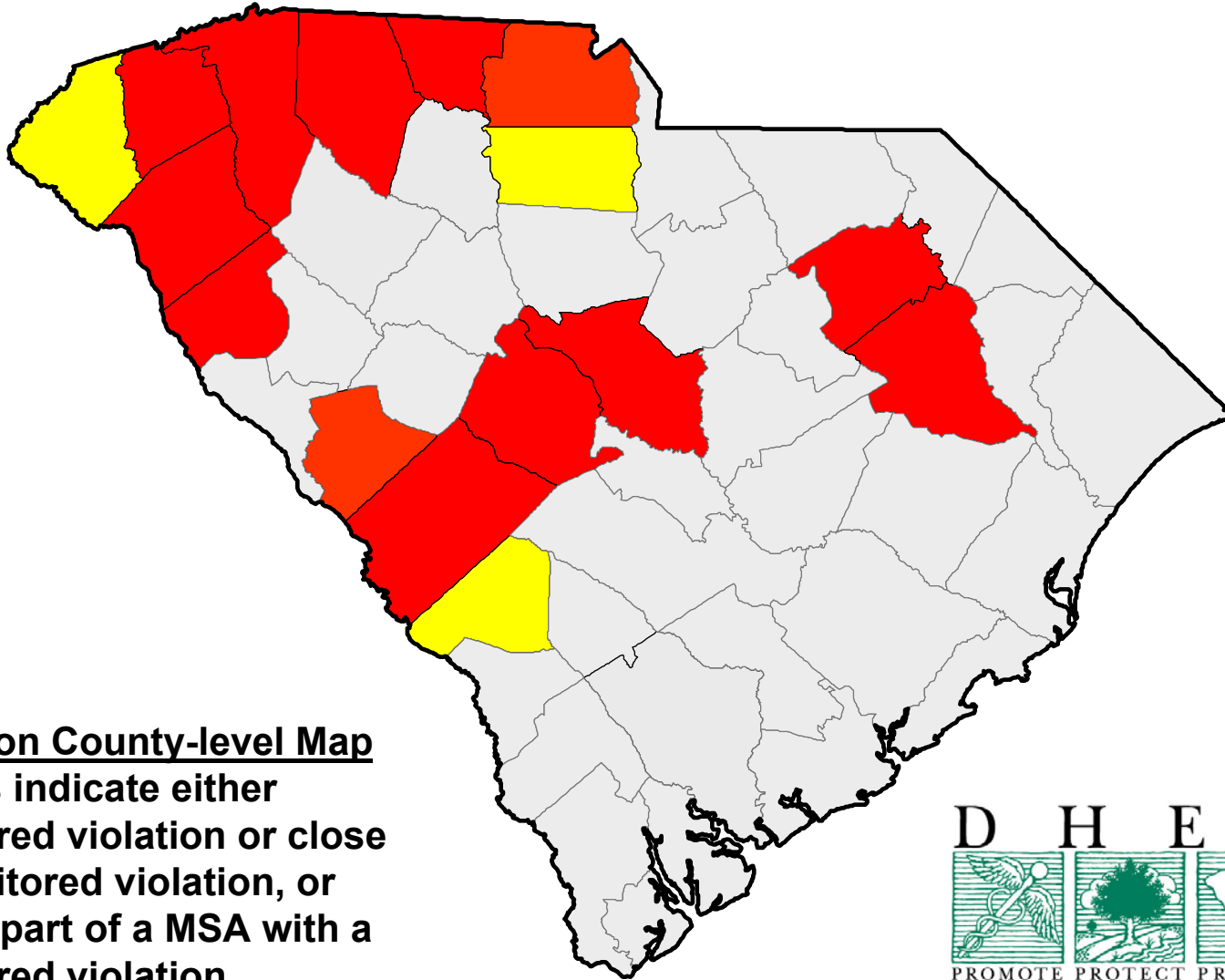
Central Midlands Area VOC Sources



So What if you Don't Use
EPA's Presumptive
Boundaries?



Potential 8-Hour Ozone Non-Attainment Boundaries



Based on County-level Map

•Colors indicate either monitored violation or close to monitored violation, or area is part of a MSA with a monitored violation.

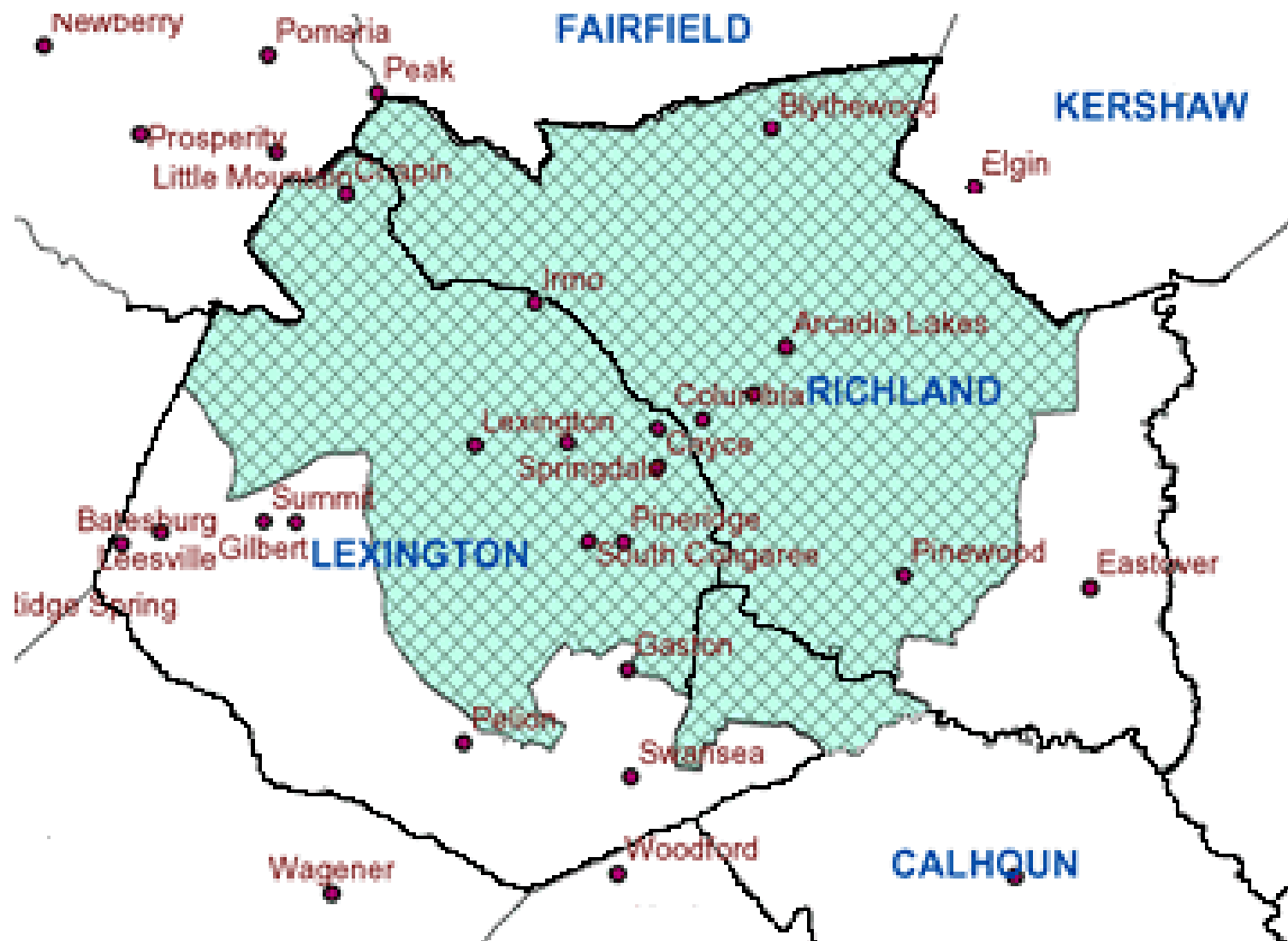


What are EPA's 11 Criteria?

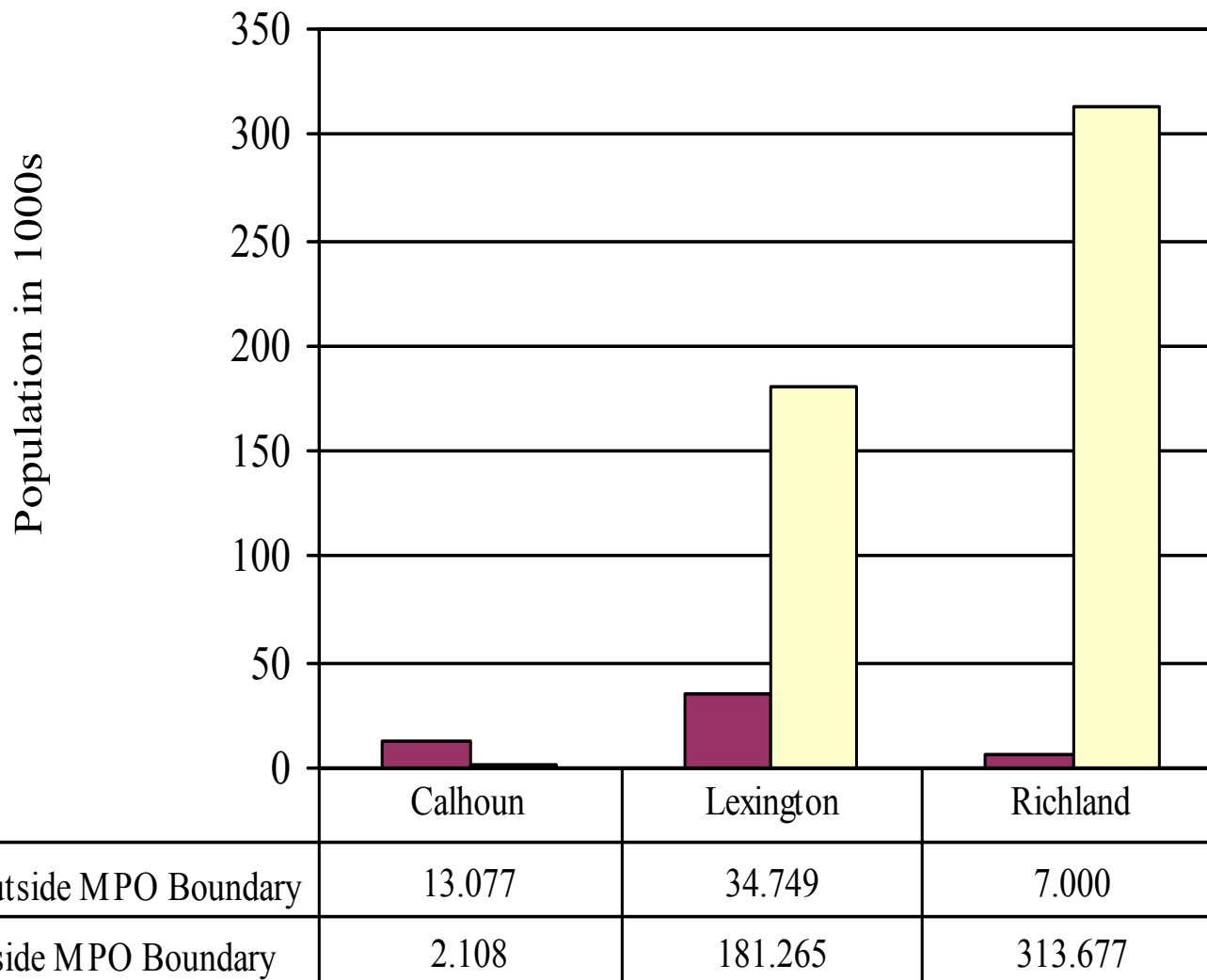
- Emissions & AQ in adjacent areas
- Population density & degree of urbanization
- Urban or regional scale monitoring data
- Location of emission sources
- Traffic & commuting patterns
- Expected growth
- Meteorology
- Geography/topography
- Jurisdictional boundaries
- Level of control of emission sources
- Regional emission reductions



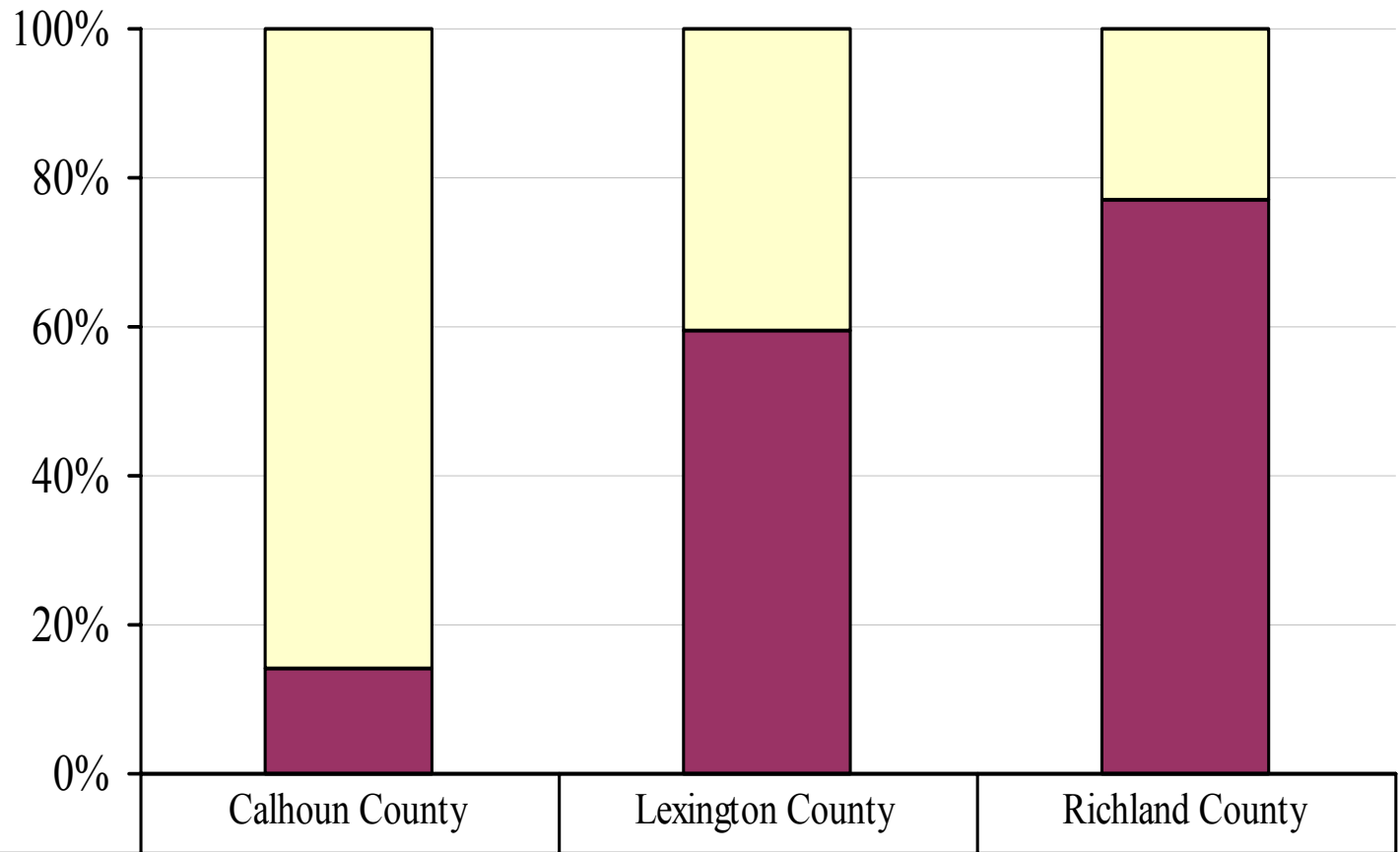
Central Midlands Area Metropolitan Planning Organization Boundary



**Figure B-2: Population Distribution
relative to MPO Boundaries, 2000**



Land Area Distribution according to MPO Boundaries, 2000



Non-MPO Land Area in Sq. Mi.	325.4	284.4	174.8
MPO Land Area in Sq. Mi.	54.6	414.6	581.2

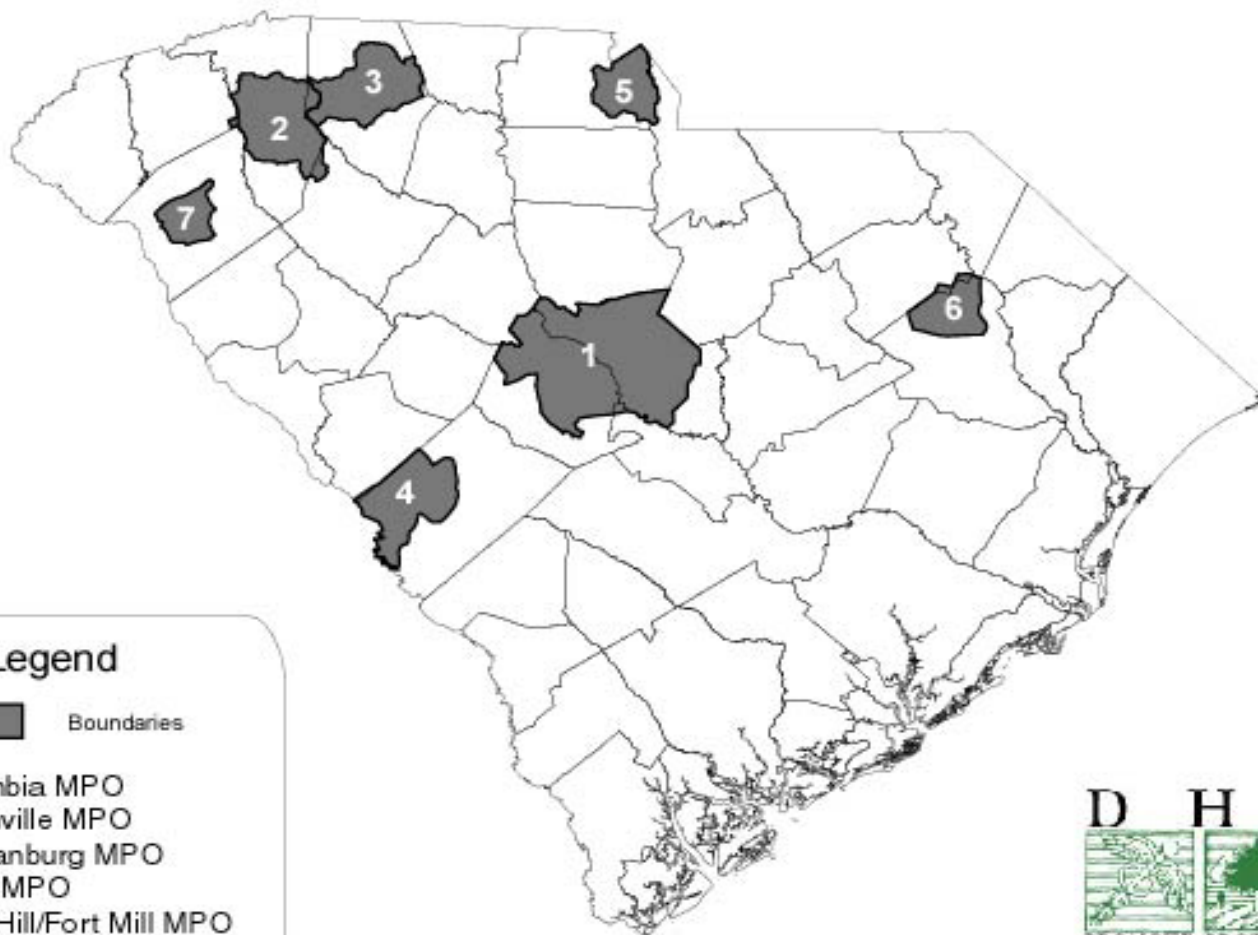


NO_x & VOC Emissions Within MPO

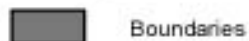
	NO _x	VOCs
Calhoun	99%	96%
Lexington	99%	95%
Richland	2%	88%



Proposed Boundary Recommendations for the Remanded 8-hr Ozone Standard 2000 Submittal



Legend



Boundaries

- 1 Columbia MPO
- 2 Greenville MPO
- 3 Spartanburg MPO
- 4 Aiken MPO
- 5 Rock Hill/Fort Mill MPO
- 6 Florence MPO
- 7 Anderson MPO



8-Hour Ozone Boundary Recommendations

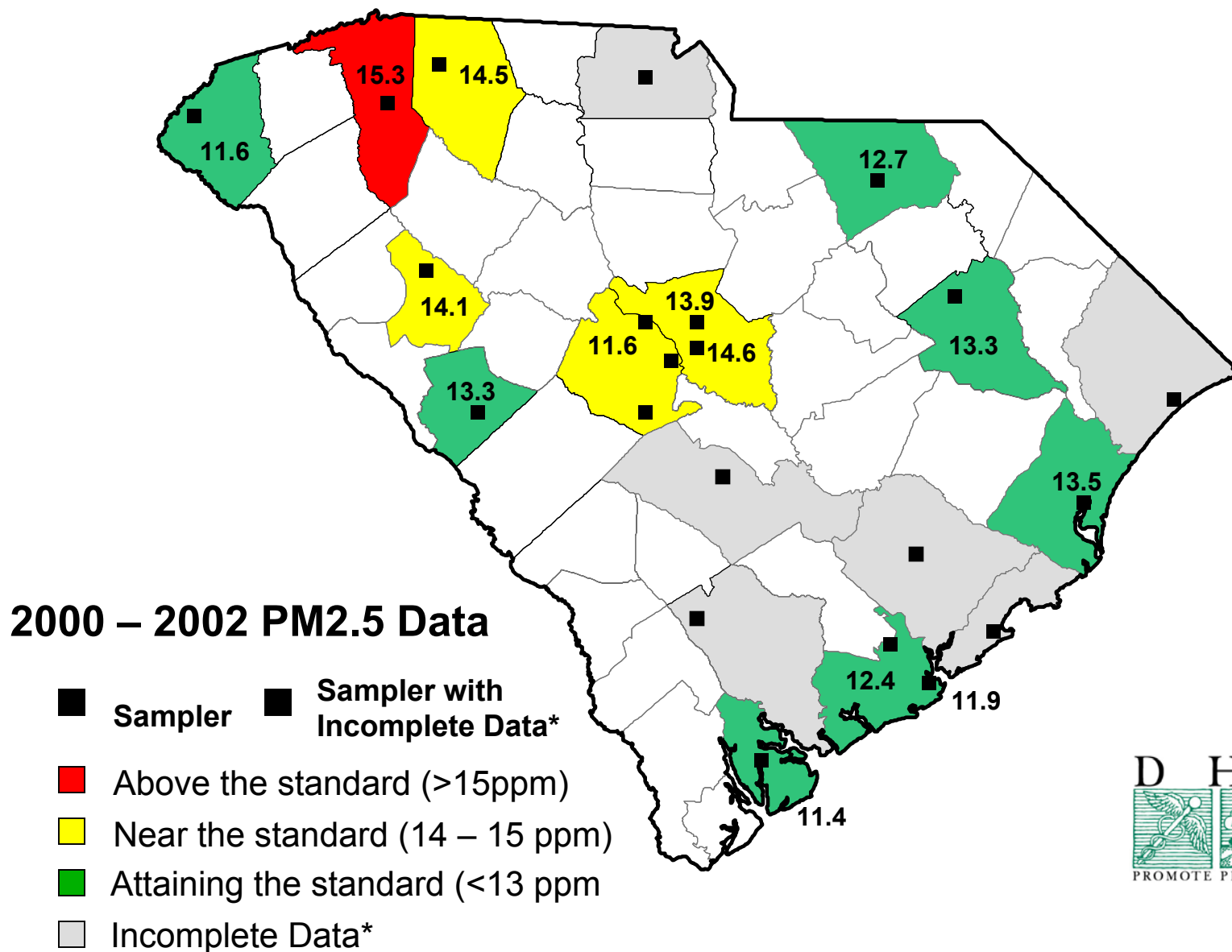


PM2.5

- Submit Recommendations by February 2004
- Submit SIP by December 2007
- Compliance by December 2009
 - 5 year extension if “close” to attainment



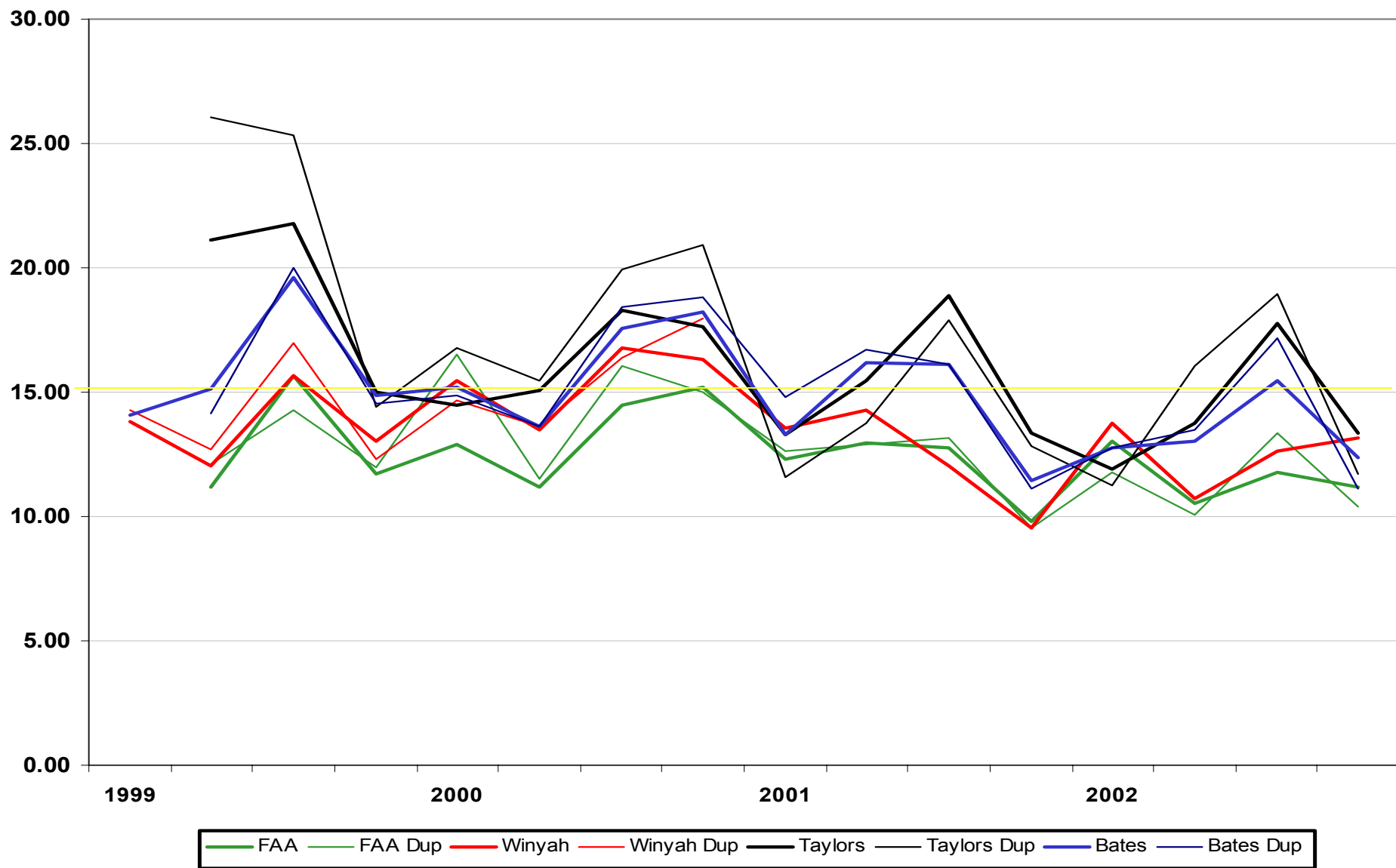
Potential PM2.5 Non-Attainment Areas



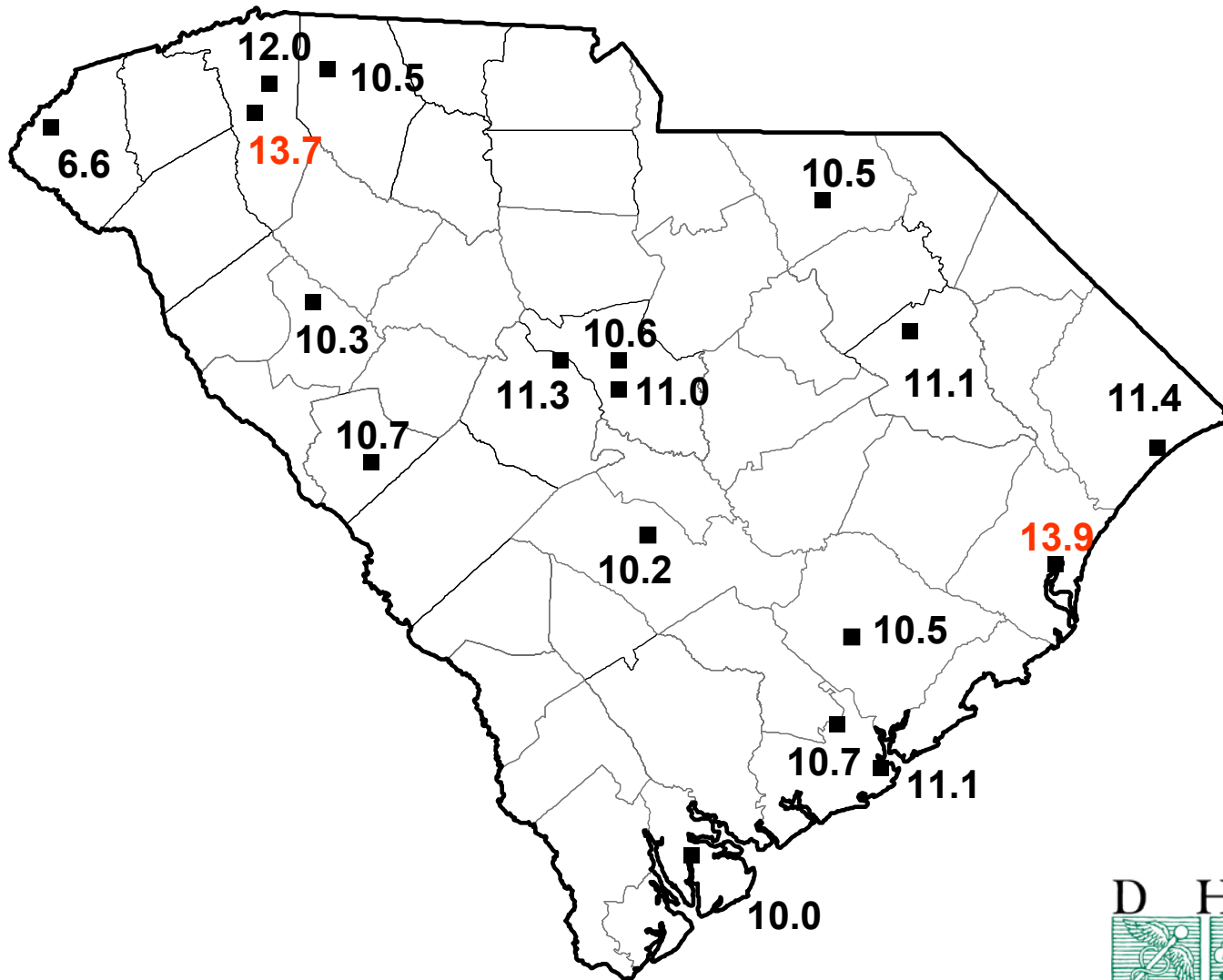
*Less than the 12 Quarters of Data Needed to Determine Attainment Status

PM2.5 FRM Sites 1999 – 2002

Annual Standard



Preliminary Data for 1st Quarter 2003



PM2.5 Boundary Recommendations



South Carolina Air Quality Information

Bureau of Air Quality

(803) 898-4123

Renee Shealy

(803) 898-4299

<http://www.scdhec.net/baq>

